

CLAIMS

1. A fluororesin composition comprising a fluorine-containing ethylenic polymer and a carbon fibril,
5 wherein said fluorine-containing ethylenic polymer is a carbonyl group-containing one and said carbon fibril amounts to 0.3 to 20% by mass relative to the total solid matter of said carbon fibril and said fluorine-containing ethylenic polymer.
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2. The fluororesin composition according to Claim 1, wherein the number of carbonyl groups is 3 to 3,000 per 1×10^6 main chain carbon atoms in the fluorine-containing ethylenic polymer.
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3. The fluororesin composition according to Claim 1 or 2, wherein the fluorine-containing ethylenic polymer is a polymer having a tetrafluoroethylene unit content of not lower than 40 mole%.
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4. The fluororesin composition according to Claim 1, 2 or 3, wherein the fluorine-containing ethylenic polymer is a copolymer comprising tetrafluoroethylene and a perfluoro ethylenic monomer represented by the following general
25 formula (I):
$$\text{CF}_2=\text{CF}-\text{Rf}^1 \quad (\text{I})$$

wherein Rf^1 represents $-\text{CF}_3$ or $-\text{ORf}^2$ and Rf^2 represents a perfluoroalkyl group containing 1 to 5 carbon atoms.
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5. The fluororesin composition according to Claim 1 or 2, wherein the fluorine-containing ethylenic polymer is a copolymer comprising the following a, b and c:
35 a. 20 to 90 mole% of a tetrafluoroethylene unit,
b. 10 to 80 mole% of an ethylene unit and

c. 0 to 70 mole% of a perfluoro ethylenic monomer unit derived from the perfluoro ethylenic monomer represented by the following general formula (I):



5 wherein Rf^1 represents $-\text{CF}_3$ or $-\text{ORf}^2$ and Rf^2 represents a perfluoroalkyl group containing 1 to 5 carbon atoms.

6. The fluoro-resin composition according to Claim 1 or 2, wherein the fluorine-containing ethylenic polymer is a
10 polymer having a vinylidene fluoride unit content of not lower than 15 mole%.

7. The fluoro-resin composition according to Claim 6, wherein the fluorine-containing ethylenic polymer is a
15 copolymer comprising the following d, e and f:

- d. 15 to 60 mole% of the vinylidene fluoride unit,
- e. 35 to 80 mole% of a tetrafluoroethylene unit and
- f. 5 to 30 mole% of a hexafluoropropylene unit.

20 8. The fluoro-resin composition according to Claim 1, 2, 3, 4, 5, 6 or 7, wherein the carbon fibril comprises a fibrous matter having an outside diameter of 1 to 1,000 nm and a length (L) in the longitudinal direction-to-outside diameter (D) ratio
25 (L/D) over 5.

9. The fluoro-resin composition according to Claim 1, 2, 3, 4, 5, 6, 7 or 8, wherein the carbon fibril comprises a carbon fibril
30 flocculate.

10. The fluoro-resin composition according to Claim 9, wherein the carbon fibril flocculate has an average particle diameter of 0.01 to 0.25 mm.

11. The fluororesin composition according to Claim 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10 which comprises an inorganic filler as well as the fluorine-containing ethylenic polymer and the carbon fibril, said inorganic filler amounting to 3 to 50% by mass of said fluororesin composition.
12. A fluorine-containing molded article which comprises the fluororesin composition according to Claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 or 11.
13. A fluorine-based layer-containing laminate which has a fluorine-based layer comprising the fluororesin composition according to Claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 or 11.
14. A method of using the fluorine-based layer-containing laminate which comprises using the fluorine-based layer-containing laminate according to claim 13 in the presence of a liquid chemical, said liquid chemical being contact with the fluorine-based layer.
15. The fluorine-containing molded article according to Claim 12 which is to be contact with a liquid when said fluorine-containing molded article is used.
16. The fluorine-based layer-containing laminate according to Claim 13, wherein the fluorine-based layer is to be contact with a liquid when said fluorine-based layer-containing laminate is used.
17. The fluorine-containing molded article according to Claim 12 or 15, which is a piping tube for coatings, a

transport tube for a drink and a liquid food, a chemical-transport tube or an auto fuel piping tube.

18. The fluorine-based layer-containing laminate
5 according to Claim 13 or 16, which is a piping tube for coatings, a transport tube for a drink and a liquid food, a chemical-transport tube or an auto fuel piping tube.